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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/440,213	11/15/1999	I-SHIN ANDY WANG	ST9-99-044	2670

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KONRAD RAYNES & VICTOR, LLP
315 S. BEVERLY DRIVE
210
BEVERLY HILLS, CA 90212

EXAMINER	
YUAN, ALMARI ROMERO	
ART UNIT	**PAPER NUMBER**
2176	

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/440,213	WANG, I-SHIN ANDY	
	Examiner	Art Unit	
	Almari Yuan	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Response filed on 4/27/04.

2. Claims 1-30 are pending in the case. Claims 1, 11, and 21 are independent claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-9, 11-19, and 21-29 rejected under 35 U.S.C. 102(e) as being anticipated by Popp et al. (Pub. No. US 2002/0133637 A1 – filed on 08/1995).**

Regarding independent claim 1, Popp discloses:

A method for generating an interface to elements in a document (on page 5, paragraphs 0069-0070: teaches HTML elements are identified by the parser and an object tree is generated based on the HTML elements identified), wherein the document defines a relationship of the elements and at least one attribute for each element (on page 1, paragraph 0014: teaches each element can have attributes that specify properties of the element), comprising

generating a class implementing methods for at least one element from information provided on elements in the document (on page 2, paragraphs 0026-0027 and page 5, paragraphs

0069-0070: teaches class of objects are defined for each HTML element; an object tree is generated based on the HTML elements identified) and a mapping indicating at least one element in the document to map to a class (on page 2, paragraphs 0026-0027: teaches one-to-one mapping between each HTML element and object classes), wherein the at least one indicated element in the document for which the class is generated can be accessed and affected by the methods implemented in the class (on page 2, paragraphs 0026-0027 and page 3, paragraph 0050: teaches each object class can include methods to manipulate the HTML element within an HTML document).

Regarding dependent claim 2, Popp discloses:

wherein the mapping includes a class name for each indicated element (on page 2, paragraph 0026: teaches mapping between object class and element and on page 4 paragraph 0063: teaches name of object class are corresponded to the HTML element).

Regarding dependent claim 3, Popp discloses:

wherein the mapping indicates a data type for at least one attribute of the indicated element (on page 1, paragraph 0014: teaches an element can have attributes that specify properties of the element and on page 6, paragraph 0079: teaches the parser identifies type of element; the object class that corresponds to the element type is identified).

Regarding dependent claim 4, Popp discloses:

wherein the relationship of the elements in the document are arranged in a hierarchical relationship, and wherein the methods in the at least one class generated for the element allow a user to directly access and affect the element (on page 2, paragraph 0024: teaches HTML is a hierarchical language of elements and on page 2, paragraphs 0026: teaches each object class

mapped to the HTML element can include methods to manipulate the HTML element within an HTML document).

Regarding dependent claim 5, Popp discloses:

further comprising accessing the at least one element in the document indicated in the mapping using a hierarchical application program interface (API), wherein one class is generated for each accessed element (on page 4, paragraph 0062: teaches application includes objects; wherein the objects corresponds to the HTML elements that define a WWW page. Objects are arranged in a tree structure that corresponds to the hierarchical structure of the HTML elements).

Regarding dependent claim 6, Popp discloses:

wherein the mapping indicates an interface to generate for the class, wherein the interface defines methods to access the element for which the class is generated (on page 2, paragraphs 0026-0027: teaches methods to manipulate the HTML element within an HTML document and on page 5, paragraphs 0069-0070: teaches HTML elements are identified by the parser and an object tree is generated based on the HTML elements identified).

Regarding dependent claim 7, Popp discloses:

wherein the methods implemented in the class include at least one method that is a member of the set of methods comprising: adding an instance of the element, inserting an instance of the element at a location in the document with respect to other instances of the element in the document, and removing an instance of the element from the document (on page paragraph 0061 teaches an object class defines instance variables to store information associated with the HTML element; on page 5, paragraph 0075: teaches for each element in the HTML template, an instance of the corresponding object class is instantiated; on page 7, paragraph

0102: teaches the NSWform object class should be instantiated and inserted within the SELECT_FORM group object).

Regarding dependent claim 8, Popp discloses:

further comprising defining extended attributes of at least one element and instantiating the class for the at least one indicated element from the defined extended attributes (on page 5, paragraphs 0075-0076: teaches element attribute information is stored in the object's instance variables).

Regarding dependent claim 9, Popp discloses:

wherein the defined extended attributes define further methods for the class (on page 3, paragraph 0050: teaches each object class can include methods to manipulate the HTML element and on page 5, paragraph 0064: teaches an object class may have a method that varies the display characteristics of the HTML element).

Regarding claims 11-19 and 21-29, the limitations of claims 11-19 and 21-29 are a system and an article of manufacture for processing the method of claims 1-9 and are rejected under the same rationale.

5. **Claim 10, 20, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Popp as applied to claims 1-9, 11-19, and 21-29 above, and in view of Skinner et al. (USPN 6,085,198).**

Regarding dependent claims 10, 20, and 30, Popp discloses the invention substantially as claimed as described *supra*. However, Popp does not explicitly disclose "serializing defined

extended attributes into memory, wherein the defined extended attributes are capable of being deserialized from the memory".

Skinner et al. (Skinner on co. 10, line 53 – col. 11, line 16: teaches serializing objects with attributes names and types and which can later be deserialized.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provide a way to serialize objects with attribute names and types and also capable deserializing object, as taught by Skinner, incorporated into the object of Popp in order to provide a useful mechanism for object persistence and transmission.

Response to Arguments

6. Applicant's arguments filed 4/27/04 have been fully considered but they are not persuasive.

Regarding Applicant's remarks on pages 2-3:

Referring to claims 1, 11, and 21, Applicant argues that Popp does not disclose "generating a class implementing methods for at least one document…", however, Popp on page 2, paragraphs 0026-0027 and on page 3, paragraph 0050 does teach elements within an HTML document can be manipulated with object classes which includes methods and wherein each object class is mapped with each HTML element within the HTML document and on page 5, paragraphs 0069-0070: teaches an object tree is generated based on the HTML elements identified; furthermore, on page 4 paragraphs 0061-0063 teaches objects within a tree structure are mapped to HTML elements within a document and wherein methods can be defined to

manipulate an HTML element to generate an HTML document. In other words, once the object tree is generated the object classes including methods are also generated and mapped to each HTML element of the document.

Applicant argues that Popp does not disclose "mapping data structure indicating elements to map to a class that is used to generate classes implementing methods for the elements", however, Popp on page 2, paragraphs 0026-0027 does teach one-to-one mapping between each HTML element and object classes; wherein each object class which can be generated from the generated object tree (see page 5, paragraph 0069) includes methods that are used to manipulate each mapped HTML element.

Regarding Applicant's remarks on page 3:

Referring to claims 1, 11, and 21, Applicant argues that Popp does not disclose "...the generated object classes to access and affect elements in the document itself", however, Popp on page 2, paragraphs 0026-0027 and page 3, paragraph 0050 teaches the object classes including methods which can be generated from the generated object tree (see page 5, paragraph 0069) are mapped to each HTML element and used to manipulate each mapped HTML element within the document. In other words, the manipulation or affects are done on the HTML element and not the object tree itself.

Regarding Applicant's remarks on page 4:

Referring to claims 2, 12, and 22, Applicant argues that Popp does not disclose "mapping indicating elements in the document to map to a class include class name for the element to map", however, Popp on page 2, paragraph 0026 does teaches a mapping between object class and HTML element within the document and on page 4 paragraph 0063 teaches the name of

object class can be the same names as the corresponding HTML elements. In other words, the object class including a name can be the same as the name of its corresponding mapped HTML element.

Regarding Applicant's remarks on page 5:

Referring to claims 3, 13, and 23, Applicant argues that Popp does not disclose "mapping data structure that provides data type for attributes of elements", however, Popp on page 1, paragraph 0014: teaches an element can have attributes that specify properties of the element and on page 6, paragraph 0079 the object class that is mapped with the HTML element (see page 2, paragraph 0026 for mapping) can also correspond to the element type; wherein the element type for the HTML element is determined by the parser.

Regarding Applicant's remarks on page 5:

Referring to claims 4, 14, and 24, Applicant argues that Popp does not disclose "allow a user to use methods to access and affect the element in the document", however, Popp on page 2, paragraphs 0026 teaches the HTML documents can be manipulated programmatically; wherein each object class includes methods and are mapped to each HTML element to manipulate each element within the document. Furthermore, on page 5, paragraphs 0068-0070 teaches a web page developer (user) can generate scripts and declarations files needed to process the web page, in other words, the web developer can affect elements in a web page through the use of templates, scripts, and definition files.

Regarding Applicant's remarks on page 6:

Referring to claims 5, 15, and 25, Applicant argues that Popp does not disclose "...accessing an element in the document using a hierarchical application program interface,

where there is one class for each element", however, Popp on page 4, paragraph 0062-0063 teaches objects corresponds to the HTML elements that define a WWW page; wherein the objects are instantiated based on object classes; wherein the object classes are mapped to each HTML element (see page 2, paragraph 0026).

Regarding Applicant's remarks on page 6:

Referring to claims 6, 16, and 26, Applicant argues that Popp does not disclose "mapping used to generate for the class…", however, Popp on page 2, paragraphs 0026-0027 teaches object classes are mapped to each HTML element within an HTML document; wherein object classes can be generated from the generated object tree and on page 5, paragraphs 0069-0070 teaches the parser identifies HTML elements to generate an object tree contains objects that are mapped to each HTML element and wherein each object corresponds to object classes including methods to manipulate the HTML element (see page 2, paragraph 0026).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Almari Yuan whose telephone number is 703-305-5945. The examiner can normally be reached on Mondays - Fridays (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild, can be reached on 703-305-9792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AY
August 3, 2004

JOSEPH H. FEILD
PRIMARY EXAMINER